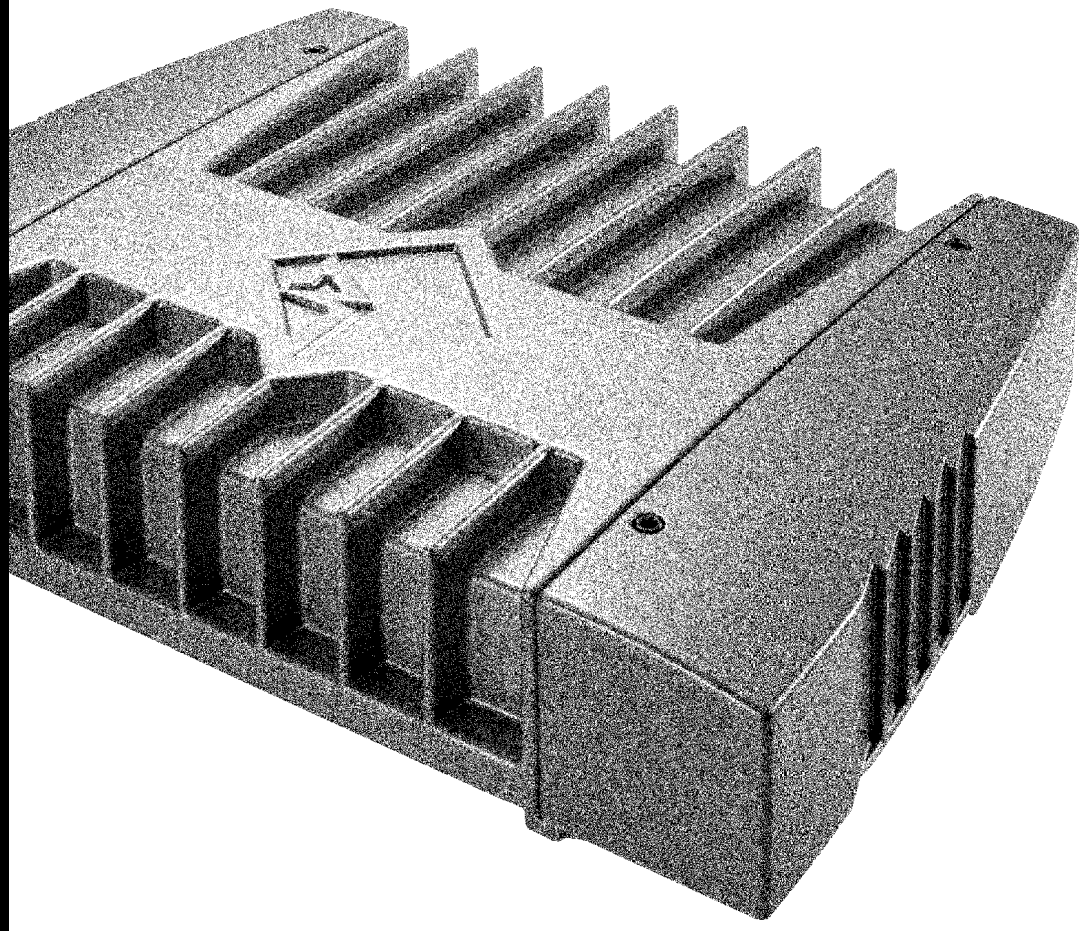
# punch 45.2

2-channel amplifier

Rockford Fosgate®
car audio for fanatics

punch



Installation Reference Sheet
Páginas de Referencia para la Instalación
Schéma d'Installation
Installations Beiblatt
Istruzioni di Installation

the punch®

*Dear Customer,*

*Congratulations on your purchase of the world's finest brand of car audio electronics. At Rockford Fosgate we are fanatics about musical reproduction at its best, and we are pleased you chose our product. Through years of engineering expertise, hand craftsmanship and critical testing procedures, we have created a wide range of products that reproduce music with all the clarity and richness you deserve.*

*For maximum performance we recommend you have your new Rockford Fosgate product installed by an Authorized Rockford Fosgate Dealer, as we provide specialized training through Rockford Technical Training Institute (RTTI). Please read your warranty and retain your receipt and original carton for possible future use.*

*Great product and competent installations are only a piece of the puzzle when it comes to your system. Make sure that your installer is using 100% authentic installation accessories from Connecting Punch in your installation. Connecting Punch has everything from RCA cables and speaker wire to Power line and battery connectors. Insist on it! After all, your new system deserves nothing but the best.*

*To add the finishing touch to your new fanatic image order your Rockford Fosgate wearables, which include everything from T-shirts and jackets to hats and sunglasses.*

*To get a free brochure on Rockford Fosgate products and Rockford wearables, please call 602-967-3565 or FAX 602-967-8132. For International orders, FAX +001-1-602-967-8132 or call +001-1-602-967-3565.*

## PRACTICE SAFE SOUND™

**CONTINUOUS EXPOSURE TO SOUND PRESSURE LEVELS OVER 100dB MAY CAUSE PERMANENT HEARING LOSS. HIGH POWERED AUTOSOUND SYSTEMS MAY PRODUCE SOUND PRESSURE LEVELS WELL OVER 130dB. USE COMMON SENSE AND PRACTICE SAFE SOUND.**

If, after reading your manual, you still have questions regarding this product, we recommend that you see your Rockford Fosgate dealer. If you need further assistance, you can call us direct at 1-800-669-9899. Be sure to have your serial number, model number and date of purchase available when you call.

The serial number can be found on the outside of the box. Please record it in the space provided below as your permanent record. This will serve as verification of your factory warranty and may become useful in recovering your amplifier if it is ever stolen.

Serial Number: _____

Model Number: _____

| Punch 45.2 | 2-Channel Punch Amplifier | Specification Reference Sheet |
|---|---|---|

# FEATURES

## TECHNICAL FEATURES

- **Trans•ana** – Sound quality topology that sends an extended bandwidth accurately to the output stages of the amplifier
- **TOPAZ** – Eliminates troublesome ground loop noise between the source and amplifier
- **NOMAD** – Extremely fast protection system that always protects the amplifier and never degrades the sound
- **MOSFET Devices** – Power supply and output devices that have high thermal stability, fast switching speed, low output impedance, and wide bandwidth linearity
- **DSM (Discrete Surface Mount) Technology** – Fewer connections, improved reliability, shorter signal paths, superior signal-to-noise ratio and awesome sonic performance

## DESIGN FEATURES

- **Diecast Heatsink** – Dissipates heat generated by the amplifier's circuitry
- **Gold-Plated RCA Input Jacks** – Maintains signal quality by resisting corrosion
- **Input Sensitivity Control** – Level control can be adjusted to match output levels from a variety of source units
- **Gold-Plated Power/Speaker Barrier Strip** – Screw terminals accept #10 spade lugs or bare wire sized from 10 to 18 AWG
- **Crossover Switch** – Crossover can be set for low-pass operation or full range
- **Bass EQ** – The Bass EQ allows a narrow band adjustment of up to +18dB centered at 45Hz. The bass boost can be bypassed by turning the control to its minimum or counterclockwise position
- **LED Power Indicator** – Visual indicator illuminates when amplifier is turned on

## WARRANTY

- **3 Years**

# SPECIFICATIONS

**RMS Continuous Power @ 14.4V (Competition Standard)**
Stereo into a 4Ω load (20Hz-20kHz, <0.05% THD) ..... 22.5x2
Stereo into a 2Ω load (20Hz-20kHz, <0.10% THD) ..... 45x2
Bridged into a 4Ω load (20Hz-20kHz, <0.10% THD) ..... 90x1

**Dynamic Power @ 14.4V (IHF Standard)**
Stereo into a 4Ω load (20Hz-20kHz, 1% THD) ..... 50x2
Stereo into a 2Ω load (20Hz-20kHz, 1% THD) ..... 85x2
Bridged into a 4Ω load (20Hz-20kHz, 1% THD) ..... 170x1

Signal-to-Noise Ratio ..... >100dB (A-weighted)
Frequency Response ..... 20Hz-20kHz ±0.5dB
Bandwidth ..... 10Hz-250kHz ±3.0dB
Damping Factor @ 4Ω ..... >200 (at output connector)

Slew Rate ..... 30v/µs
IM Distortion (IHF) ..... <0.05%
Input Impedance ..... 20kΩ
Factory Default Crossover ..... 80Hz low-pass fixed
Crossover Slope ..... 12dB/octave Butterworth
Source Unit Compatibility (+15dB gain overlap) ..... 20V max.
Input Sensitivity (0dB gain overlap) ..... 200mV to 3.5V
Operating Voltage ..... +9V to +15.4V DC
External Battery Fuse ..... 20A (ATC)
Standby Current ..... 700mA
Dimensions ..... 2⅝"H x 9⅝"W x 10 9/32"L (6.6cm x 24.4cm x 26.1cm)
Weight ..... 5.7 lbs. (2.58kg)

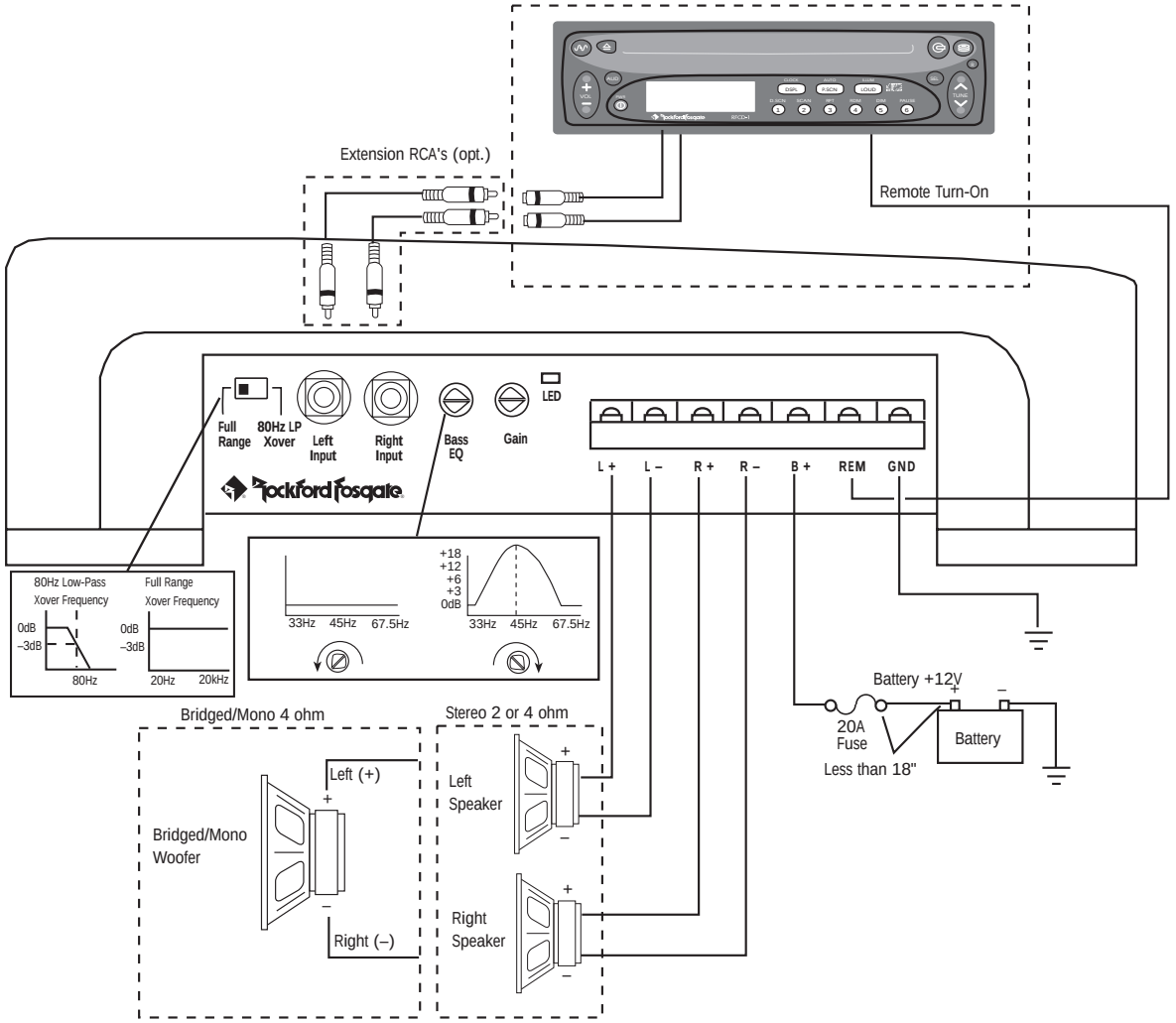
# ACCESSORY PACK

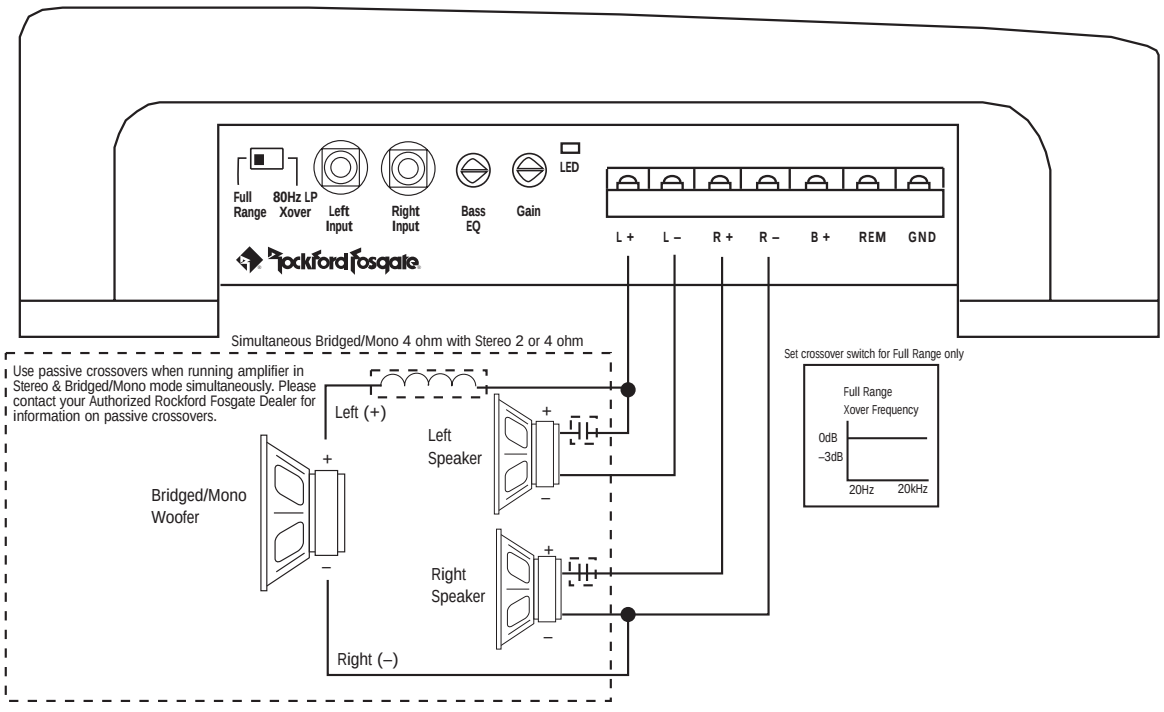
(1) Punch Verification Certificate
(4) Amplifier Mounting Screws (#8 x 3/4" Phillips)
(1) 9/64" Allen Wrench
(4) 9/64" End Cap Mounting Screws
(1) ATC In-line Fuseholder
(1) ATC 20 Amp Fuse

Rockford Fosgate®

*Specifications subject to change without notice*

| Punch 45.2 | 2-Channel Punch Amplifier | Installation Reference Sheet |
|---|---|---|



# INSTALLATION

**• For safety, disconnect the negative lead from the car battery prior to beginning the installation**

**Trunk Mounting**
Mounting the amplifier vertically on a surface with the fin grooves running up and down will provide the best cooling for the amplifier.

**Passenger Compartment Mounting**
Mounting the amplifier in the passenger compartment will work as long as you provide a sufficient amount of air for the amplifier to cool itself. If you are going to mount the amplifier under the seat of the vehicle, you must have at least 1" (2.54cm) of air gap around the amplifier's heatsink.

**B+ Terminal**
The B+ cable MUST be fused 18" (45cm) or less from the vehicle's battery. Prepare the cable ends and install the fuseholder under the hood. Connections should be water tight.

**GND Terminal**
Prepare a length of cable to be used for the ground connection. Prepare the chassis ground by scraping any paint from the metal surface and thoroughly clean the area of all dirt and grease. Fasten the cable to the chassis using a screw.

**REM Terminal**
Connect the REM wire to a switched 12 volt positive source. The switched signal is usually taken from the source unit's auto antenna or the accessory lead. If the source unit does not have these outputs available, the recommended solution is to wire a mechanical switch in-line with a 12 volt source to activate the amplifier.

**Input Connectors**
Follow the diagram and connect the appropriate signal cables to the input terminals of the amplifier. Be sure that the signal cables are routed close together and away from any high current wires.

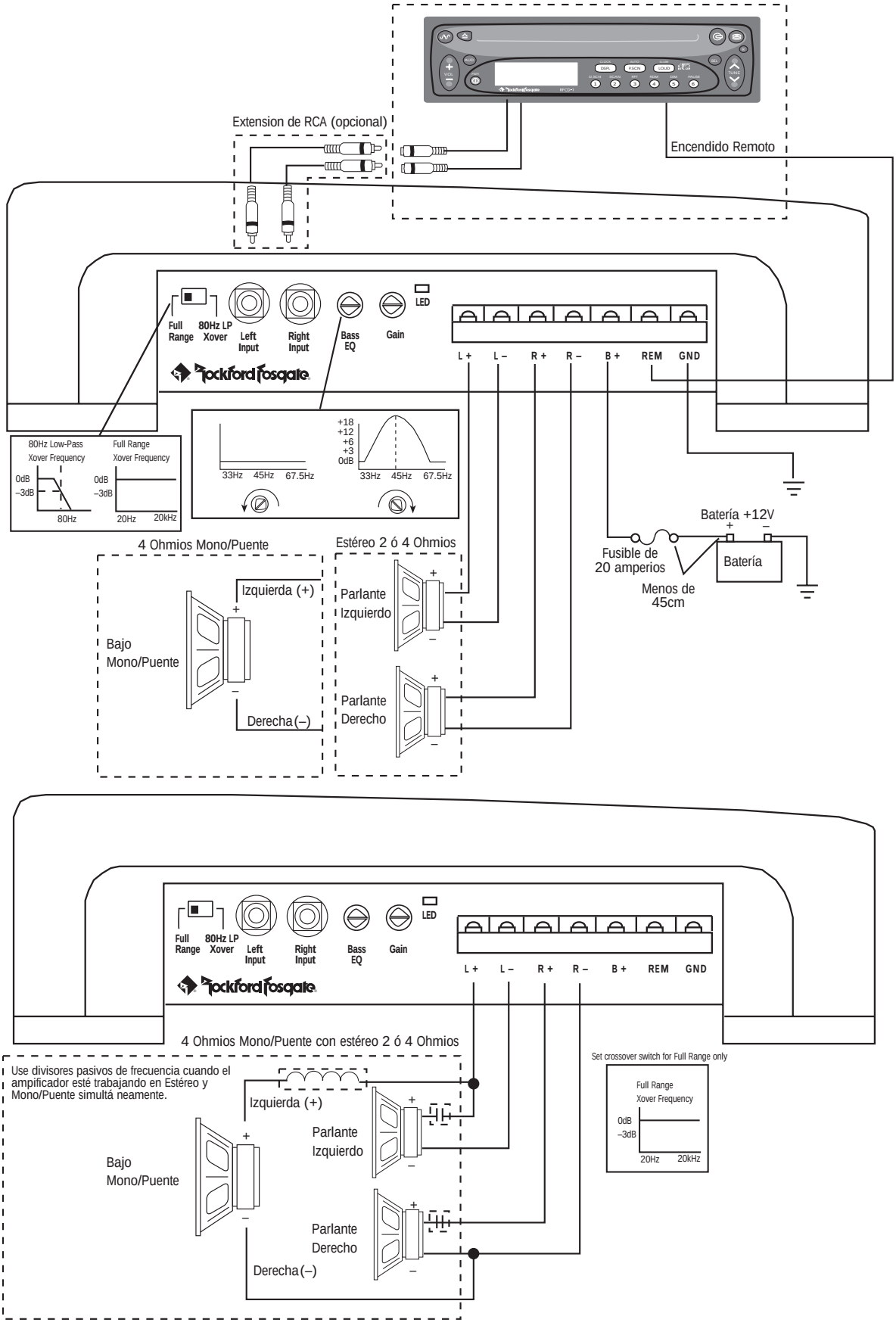
**Speaker Output Terminals**
Connect the speaker system to the amplifier by inserting the wires into the corresponding output terminals and tighten the set screws. Follow the diagram for proper signal polarity. **DO NOT chassis ground any of the speaker wires as unstable amplifier operation may result. CAUTION: This amplifier is not recommended for impedance loads below 2Ω stereo and/or 4Ω bridged (mono).**

**Gain Control(s)**
The amplifier is factory set for optimum dynamic range. The system levels may be adjusted by ear when using a source unit with higher or lower output levels by using the following procedure.

1. Turn the gain control to minimum (counterclockwise)
2. Play a music track with high dynamic content and turn up the source unit to at least 3/4 volume
3. Slowly increase the gain and set it just below audible distortion or until reaching a comfortable hearing threshold (whichever occurs first)

# TROUBLESHOOTING

| Symptom | Diagnosis | Remedy |
|---|---|---|
| **Amplifier does not turn on.** | B+ or REM not between 10.5 and 15.5 volts or no voltage present | Check the alternator, battery, fuse, and wiring and repair as necessary |
| | Amplifier is not properly grounded. | Check wiring and repair as necessary |
| **Amplifier Noise** (Turn-On Pop) | Voltage spike from source unit is entering amplifier's input | Connect turn-on module to REM terminal if pops are eliminated with no input signal to amplifier |
| **Engine Noise** | Noise is radiating into signal cables | Re-route signal cables away from sources of high current |


Extension de RCA (opcional)
Encendido Remoto
Full Range
80Hz LP Xover
Left Input
Right Input
Bass EQ
Gain
LED
L +
L –
R +
R –
B +
REM
GND
80Hz Low-Pass Xover Frequency
Full Range Xover Frequency
0dB
–3dB
80Hz
20Hz
20kHz
+18
+12
+6
+3
0dB
33Hz
45Hz
67.5Hz
Batería +12V
Fusible de 20 amperios
Batería
Menos de 45cm
4 Ohmios Mono/Puente
Estéreo 2 ó 4 Ohmios
Izquierda (+)
Bajo Mono/Puente
Derecha (–)
Parlante Izquierdo
Parlante Derecho
4 Ohmios Mono/Puente con estéreo 2 ó 4 Ohmios
Use divisores pasivos de frecuencia cuando el ampificador esté trabajando en Estéreo y Mono/Puente simultá neamente.
Set crossover switch for Full Range only

# INSTALACÍON

**• Por seguridad, desconecte el terminal negativo de la bateria antes de comenzar la instalacíon.**

**Montaje en el Malatero del vehícule**
Monte el amplificador verticalmente con las líneas del radiador orientadas de arriba hacia abajo. De esta manera conseguirá la mejor ventilación.

**Montaje en el Compartimento de Pasajeros**
El montaje en el compartimento de pasajeros sera eficiente en funcion de la ventilación que tenga el amplificador. Si va a instalar el amplificador bajo un asiento deberá dejar al menos 2.5cm libres sobre la carcasa del amplificador.

**Terminal B+**
El cable B+ debe ir provisto de un fusible a una distancia no mayor de 45cm de la batería. Prepare el cable e instale el portafusibles en el compartimento del motor. Las conexiones han de ser impermeables.

**Terminal GND**
Prepare un trozo de cable para usarlo como toma de masa. Prepare un punto de masa en el chasis rascando y eliminando la pintura de la superfcicie de metal y límpielo de toda suciedad asegure el cable al chasis con un tornillo.

**Terminal REM (Encendido remoto)**
Conecte el cable REM a un punto de +12V conmutable. La señal se suele coger de la salida auto antena del radio cassette si este no tiene salida remote.

**Conectores de Entrada**
Siga el diagrama y conecte los cables adecuados para señal a los terminales de entrada del amplificador. Asegúre se que los cables de señal esten canalizados en conjunto y lo más lejo posible de cualquier cable de alto amperaje.

**Terminales de salida para los Parlantes**
Conecte el sistema de parlantes al amplificador insertando los cables correspondientes en los ternminales de salida y luego aprete los tornillos. Siga el diagrama para una adecuada polaridad de señal. **NO CONECTE ninguno de los cables de los parlantes a la masa de la carcasa, ya que esto puede resultar en una operación inestable del amplificador. PRECAUCION: este amplificador no está recomendado para cargas de impedancia por abajo de 2 Ohmios en estéreo y/ó 4 Ohmios en modo puente (bridge mono).**

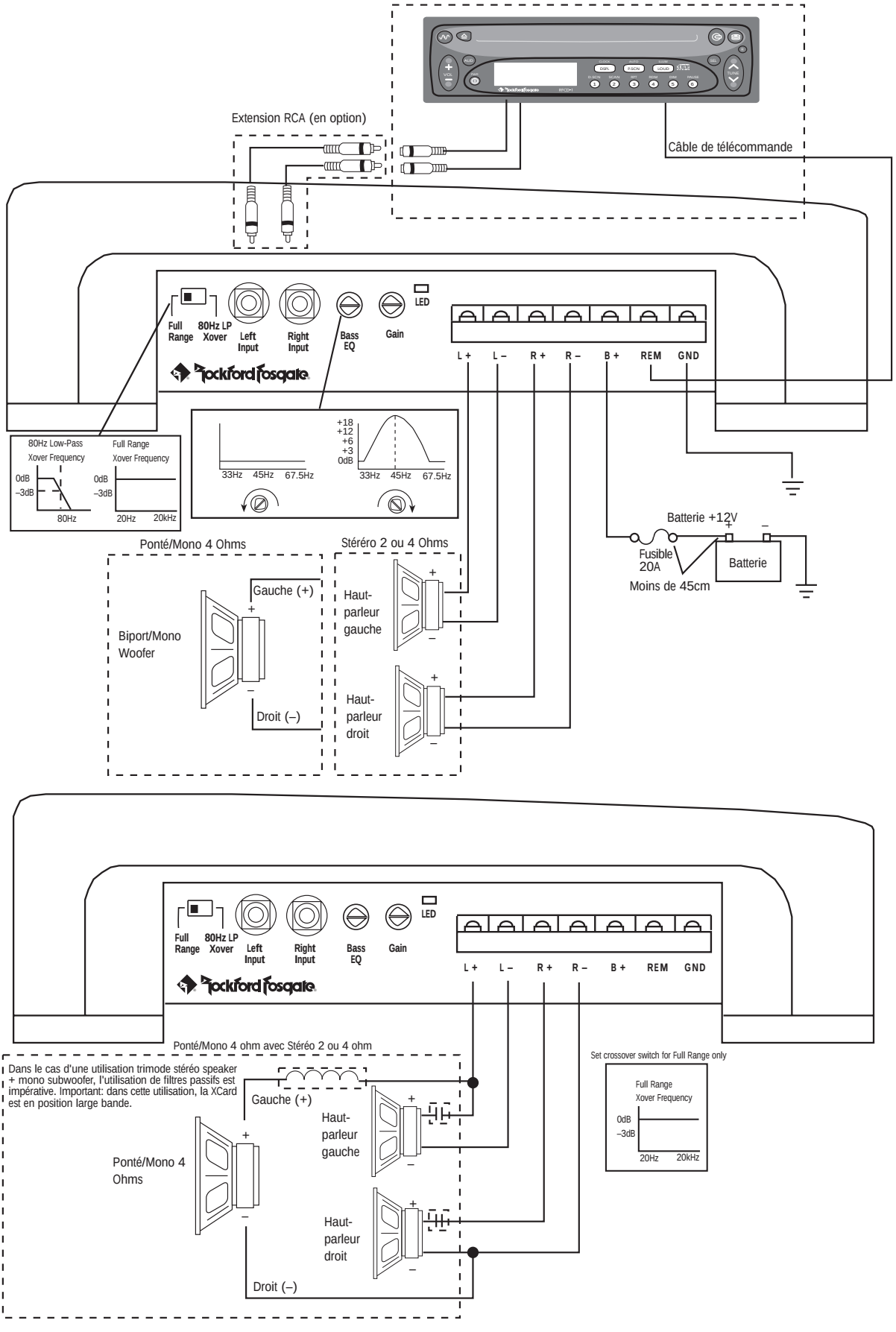
**Control(es) de Ganancia**
El amplificador está dispuesto desde la fábrica para óptimo rango dinámico. Los niveles del sistema pueden ser ajustado por oído cuando se utilice una unidad fuente con niveles de salidas más altos ó bajos, mediante el uso del siguiente procedimiento:

1. Lleve el control de ganancia al mínimo (en contra de las agujas del reloj)
2. Reproduzca una pista musical con alto contemiodo dinámico y lleve el volumen de la unidad fuente hasta unos 3/4 de máximo
3. Lentamente incremente la ganancia y pare justo bajo el nivel audible de distorsion ó hasta que llegue a un umbral agradable de audición (cualquiera que ocurra primero)

# TROUBLESHOOTING

| Síntoma | Diagnóstico | Remedio Reparación |
|---|---|---|
| **El Amplificador no enciende** | B+ ó REM no están entre 10.5 y 15.5 voltios ó no hay voltaje presente. | Chequee el alternador, batería, fusible y cableado y repare segun sea necesario |
| | El amplificador no está aterrado apropiademente | Cheque el cableado y repare según sea necesario |
| **Ruido de Amplificador** (Popeo de encendido) | Picos de voltaje de la unidad fuente están presentes en la entrada del amplificador | Conecte el módulo de encendido al terminal REM si el popeo es eliminado cuando el amplificador no tiene señal de entrada |
| **Ruido de Motor** | Ruido está siendo radiado en los cables de señal | Recanlizar los cables de señal aleajado de fuentes de alto amperaje |

| Punch 45.2 | Amplificateur de puissance 2 canaux– Français | Schéma d'Installation |
|---|---|---|



# INSTALLATION

**• Pour votre sécurité, deéconnectez la borne négative de la batterie du véhicule avant de commencer le montage.**

**Montage dans l'habitacle**
L'installation d'un amplificateur est envisageable dans l'habitacle dès que la convection naturelle est suffisante. Il est possible de fixer l'amplificateur soud un siège si la hauteur de celui-ci permet au minimum d'avoir trois centimètres au-dessus du dissipateur thermique.

**Alimentation**

**La connexion B** doit être reliée impérativement via un fusible, directement à la borne positive de la batterie.

**La connexion GND**
Cette liaison référence l'amplificateur à la masse. La masse électrique du châssis n'a pas en tous points la même qualité. Il vous sera utile de recourir aux compétences d'un professionel pour déterminer le meilleur point. Une fois trouvé, il faudra débarrasser la tôle de toutes traces de peinture, le raccordement devra se faire par une vis acier (sans traitement de surface).

**La connexion REM**
Cette connexion est la commande à distance de mise en/hors service. Elle est généralement reliée à la sortie (antenne électrique de l'autoradio) ou auprès d'une source de douze volts commutée.

**Connecteur CINCH**
Cette liaison assure la transmission de modulation entre l'autoradio et la source. En raison des faibles signaux véhiculés dans ces câbles, ceux-ci devront être tenus à l'écart du faisceau électrique du véhicule et des câbles d'alimentation de l'amplificateur.

**Connections haut-parleurs**
Les haut-parleurs serons connectés sur cette partie du bornier. Soyez vigilant quant au sens du branchement + et –. **Avertissement: L'impédance globale en mode stéréo ne peut être inférieure à deux Ω et en mode ponté à quatre Ω.**

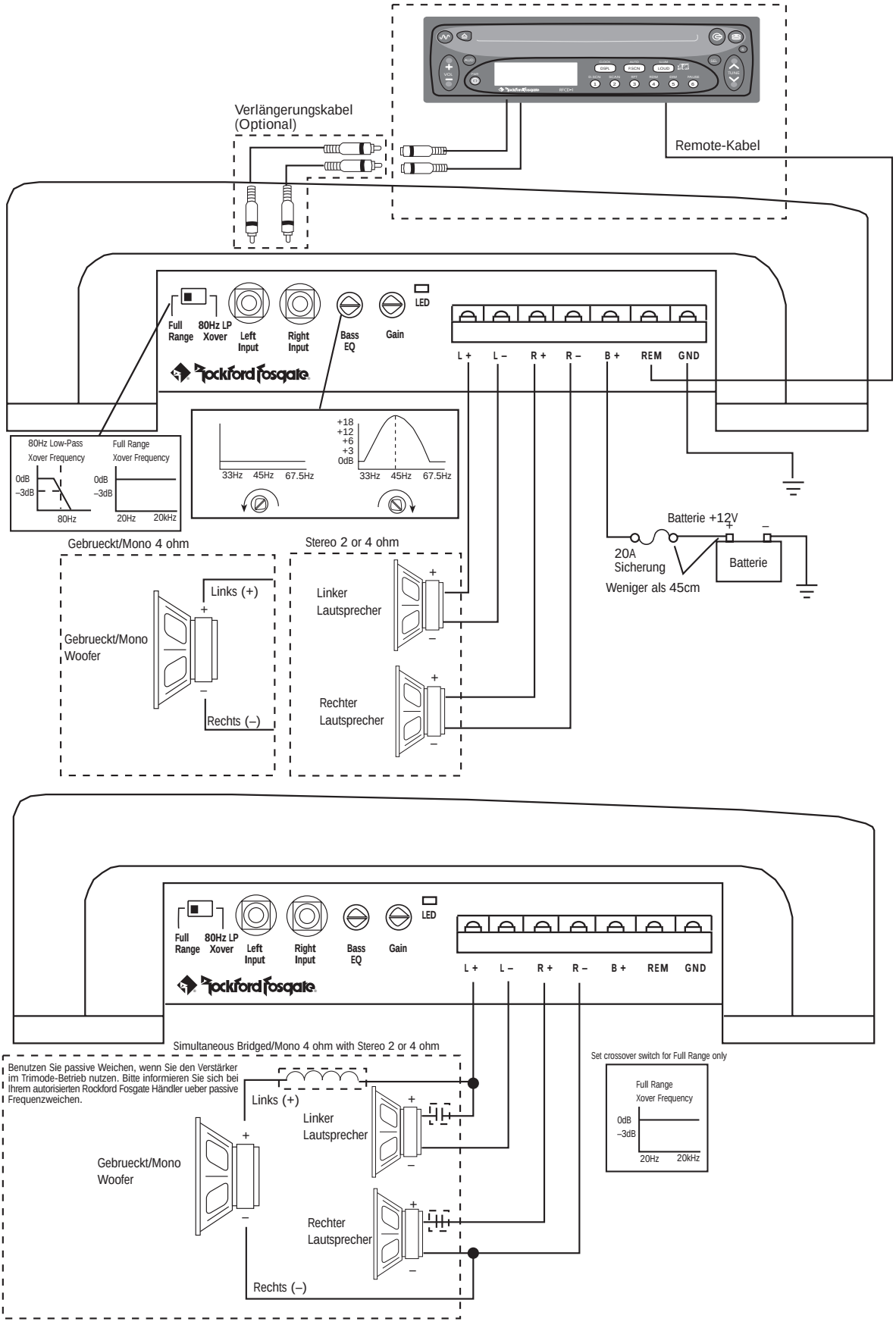
**Contrôle de sensibilité**
A la sortie d'usine, l'amplificateur est réglé (valeur qui détermine la meilleure capacité dynamique). La sensibilité est variable pour adapter l'amplificateur aux différentes sources qui ne possèdent pas le même niveau de sortie. **Ce réglage est très important, il est déterminant de la qualité de reproduction et de la pérennité de l'installation.**

**Méthodologie du réglage**

1. Positionnez le réglage de sensibilité au minimum (à l'inverse du sens des aiguilles d'une montre)
2. Ecoutez un passage musical à grande dynamique (solo de guitare basse, etc.) avec le potentiomètre de volume de la source aul 3/4
3. Doucement dans le sens des aiguilles d'une montre tournez le potentiomètre de sensibilité de l'amplificateur jusqu'à percevoir une déformation. A cette étape, il fault revenir juste en-dehors du seuil de déformation
4. Il faut répéter plusieurs fois cette procédure avec différents disques pour être sûr du réglage

# SOLUTIONS AUX PROBLÈMES

| Symptôme | Diagnostic | Solution |
|---|---|---|
| **L'amplificateur ne fonctionne pas** | B+ our REM ne sont pas connectés à une source de 12V | Vérifiez si la batterie est reconnectée et si le fusible est bon |
| **Bruit à l'a mise en/hors service** | Le bruit est transmis par la source | Insérez un module séparé de télécommande commandant l'amplificateur |
| **Bruit parasite** | Bruit rayonné sur les câbles de modulation | Tenir à l'écart les câbles de modulation du faisceau électrique de la voiture et de l'alimentation de l'amplificateur |


Verlängerungskabel
(Optional)
Remote-Kabel
Full Range
80Hz LP Xover
Left Input
Right Input
Bass EQ
Gain
LED
L +
L –
R +
R –
B +
REM
GND
80Hz Low-Pass
Xover Frequency
0dB
–3dB
80Hz
Full Range
Xover Frequency
0dB
–3dB
20Hz
20kHz
+18
+12
+6
+3
0dB
33Hz
45Hz
67.5Hz
Batterie +12V
20A
Sicherung
Weniger als 45cm
Batterie
Gebrueckt/Mono 4 ohm
Links (+)
Gebrueckt/Mono
Woofer
Rechts (–)
Stereo 2 or 4 ohm
Linker
Lautsprecher
Rechter
Lautsprecher
Simultaneous Bridged/Mono 4 ohm with Stereo 2 or 4 ohm
Benutzen Sie passive Weichen, wenn Sie den Verstärker im Trimode-Betrieb nutzen. Bitte informieren Sie sich bei Ihrem autorisierten Rockford Fosgate Händler ueber passive Frequenzweichen.
Set crossover switch for Full Range only

# EINBAU

**• Zur Sicherheit klemmen Sie den Negativ-Pol der Batterie während des gesamten Einbaues ab.**

**Im Fahrzeugkofferraum**
Der vertikale Einbau der Endstufen, das bedeutet, dab die Kühlrippen von oben nach unten verlaufen, gibt dem Verstärker die beste Kühlung.

**Auf der Beifahrerseite**
Sollte der Verstärker auf der Beifahrerseite montiert werden, so ist es sehr wichtig für eine ausreichende Kühlung zu sorgen. Sollte der Verstärker z.B. unter dem Beifahrersitz montiert werden, sollte dem Kühlkörper mindestens ein Luftspalt von 3 cm bleiben, um so für eine ausreichende Kühlung zu sorgen.

**B+ Anschluβ**
Die Plus-Leitung MUβ ca. 40 cm nach dem Plus-Pol der Batterie abgesichert sein. Preparieren Si die Kabellängen und montieren Sie den Sicherungshalter im Motorraum. ALLE Verbindungen müssen wasserdicht sein.

**GND Anschluβ**
Preparieren Sie Ihr Kabel für Negativ Leitung (Erdung). Preparieren Sie die Anschlubstelle des Erdungskabels, indem Sie das Metall gründlich reinigen und vom Lack befreien. Befestigen Sie nun die Erdung an dieser Stelle mit einer Schraube.

**REM Anschluβ**
Verbinden Sie das Ein-und Ausschaltungskontroll-Kabel mit Ihrem Radio (12 Volt positiv). Normalerweise verwenden Sie hierfür die Ant.-Remote). Sollte Ihr Radio diesen Anschluβ nicht besitzen, so verwenden Sie eine 12 Volt Spannung, die Sie durch einen Schalter ein- und ausschalten können.

**Eingangs-Anschlüβe**
Beachten Sie den Anschlussplan und verbinden Sie die Signalkabel mit den Eingangs-Anschluessen des Verstärkers. Seien Sie sicher, dass die Kabel dicht zusammen und entfernt von stromfuehrenden Kabeln liegen.

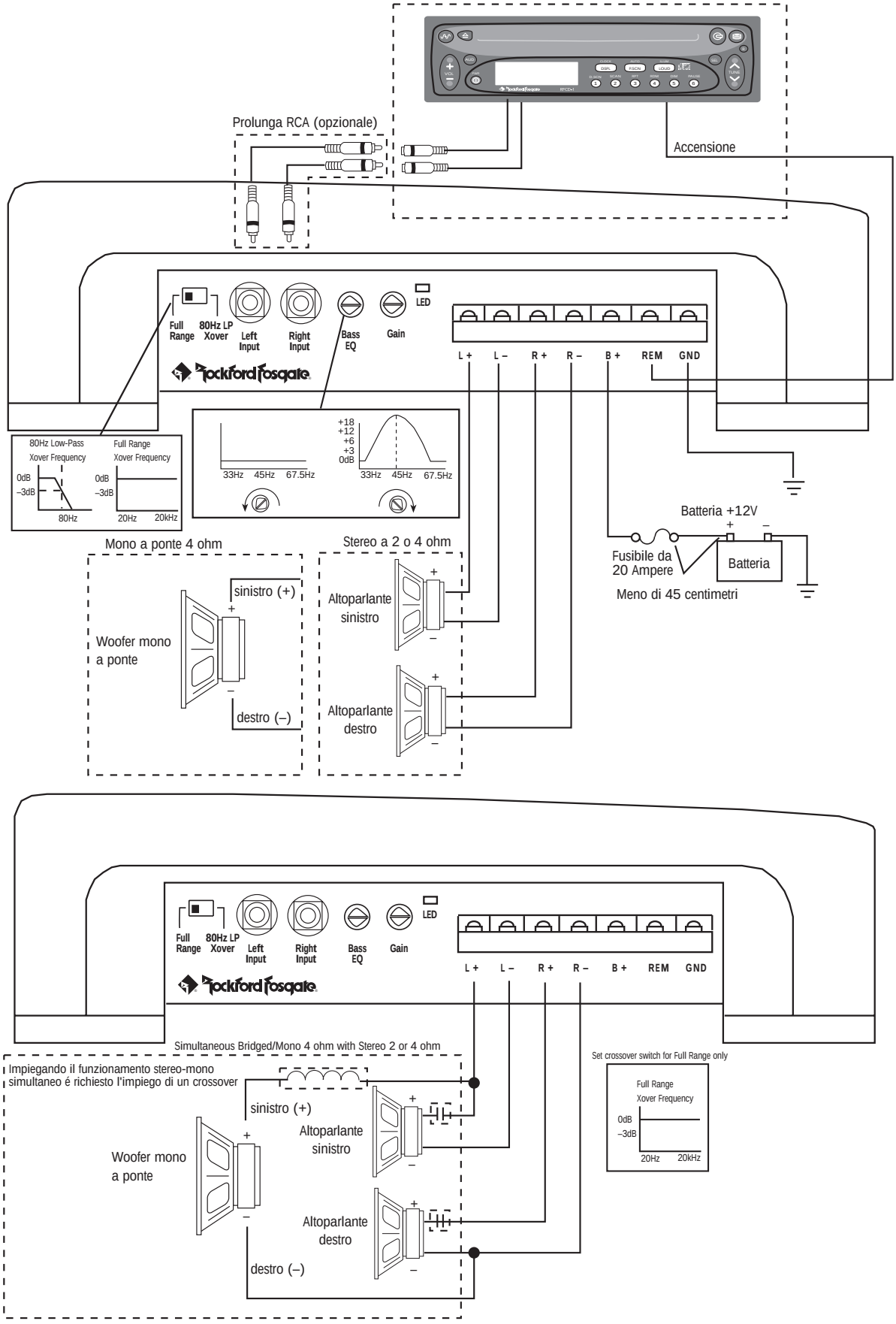
**Lautsprecher Ausgänge**
Verbinden Sie das Lautsprechersystem mit dem Verstärker, indem Sie die Kabel in die entsprechenden Anschluesse stecken und verschrauben. Beachten Sie hierbei den Anschlussplan, um eine korrekte Polarität zu gewährleisten. **Erden Sie niemals eine der Lautsprecherleitung auf die Masse des Fahrzeuges. Achtung: Die minimale Last von 2Ω Stereo und/oder 4Ω gebrueckt (Mono) darf nicht unterschritten werden.**

**Eingangsempfindlichkeit**
Der Verstärker ist Werkssetig auf eine Eingangsspannung. Die Eingangsempfindlichkeit kann nach Gehoer verstellt werden, wenn die Ausgangsspannung des Steuergerätes hoeher oder niedriger ist. Gehen Sie wie folgt vor.

1. Drehen Sie die Eingangsempfindlichkeit auf ein Minimum (gegen den Uhrzeigersinn).
2. Speilen Sie einen Musiktitel mit einer sehr hohen Dynamik und drehen Sie die Lautstärkekontrolle des Steuergerätes auf ä der Maximallautstärke.
3. Jetzt verstellen Sie die Eingangsempfindlichkeit des Verstärkers soweit (im Uhrzeigersinn drehen), bis Sie eine Verzerrung des Signals wahrnehmen. Danach sollte ie Empfindlichkeit wieder soweit zurueck gedreht werden (gegen den Uhrzeigersinn), bis die Verzerrungen verschwindern.

# FEHLERSUCHE

| Syptom | Diagnose | Fehlerbehebung |
|---|---|---|
| **Verstärker schaltet nicht ein** | Die B+ oder Rem. Spannung liegt nicht zwischen 10.5 und 15.5 Volt | Kontrollieren Sie die Lichtmaschine, Batterie, Sicherung und die Kable. Repaireren Sie diese, wenn noetig |
| | Verstärker ist nicht korrekt geerdet | Kontrollieren Sie die Kabel und reparieren Sie diese, wenn noetig |
| **Verstärker Einschaltgeräusch** (Turn-On Pop) | Die XCard ist falsch oder gar nicht in den entsprechenden Socket gesteckt. | Kontrollieren Sie die Installation der XCard und ändern Sie diese, wenn noetig |
| **Lichtmaschinen Summen** | Stoerungen strahlen in die Signalkabel | Verlegen Sie die Kabel weit entfernt von stromfuehr |


Prolunga RCA (opzionale)
Accensione
Full Range
80Hz LP Xover
Left Input
Right Input
Bass EQ
Gain
LED
L +
L –
R +
R –
B +
REM
GND
80Hz Low-Pass
Xover Frequency
0dB
–3dB
80Hz
Full Range
Xover Frequency
0dB
–3dB
20Hz
20kHz
+18
+12
+6
+3
0dB
33Hz
45Hz
67.5Hz
Batteria +12V
Fusibile da 20 Ampere
Batteria
Meno di 45 centimetri
Mono a ponte 4 ohm
sinistro (+)
Woofer mono a ponte
destro (–)
Stereo a 2 o 4 ohm
Altoparlante sinistro
Altoparlante destro
Simultaneous Bridged/Mono 4 ohm with Stereo 2 or 4 ohm
Impiegando il funzionamento stereo-mono simultaneo é richiesto l'impiego di un crossover
Set crossover switch for Full Range only

# INSTALLAZIONE

**• Per sicurezza, scollegare il polo netativo della batteria dell'auto prima di iniziare l'installazione.**

**Nel Bagagliaio**
Montando l'amplificatore su una superficie in verticale con le alette direzionate dall'alto verso il basso si garantirá un miglior raffreddamento dell'amplificatore.

**Nel'abitacolo**
Montare l'amplificatore nell'abitacolo si avrá un funzionamento regolare se si garantisce un flusso d'aria sufficiente. Per l'installazione sotto un sedile, é necessario avere uno spazio di almeno 3 cm attorno a tutto l'amplificatore.

**Terminale B+ (cavo positivo)**

Il cavo positivo deve essere protetto da un fusibile a non piú di 45 cam dalla batteria. Terminare il cavo e installare il fusibile nel vano motore. Tutte le connessioni devono essere a prova d'acqua.

**Terminal GND (cavo negativo)**
Decidere la lunghezza del cavo e terminarlo. Preparare la massa grattando la vernice dal telaio dell'auto ed eliminando tracce di olio o sporco. Fissare il cavo di massa al telaio con una vite.

**Terminal REM (Consenso di accensione)**
Collegare il cavo REM ad un positivo present solo ad autoradio accessa (normalmente il cavo pilota dell'antenna elettrica o il cavo accessori dell'autoradio). Se la sorgente non dovesse essere equipaggiata con queste uscite, la soluzione raccomandabile é di inserire un interruttore su un cavo positivo e connettersi all'amplificatore.

**Connettori di ingresso**
Seguendo lo schema collegate i cavi di segnale agli appropriati terminali di ingresso dell'amplificatore. Assicuratevi che i cavi di segnale siano passati vicini tra loro e lontano da cavi ad alta corrente.

**Connettori degli altoparlanti**
Collegate il sistema di altoparlanti inserendo i cavi nei terminali corrispondenti e serrate le viti. Seguite lo schema per l'ottimale colle gamento delle polaritá. **Non cortocircuitate a massa nessun cavo degli altoparlanti, potrebbe verificarsi un anomalo comportamento dell'amplificatore. ATTENZIONE; questo amplificatore non é raccomandato per impedenze inferiori ai 2 ohm stereo w/o 4 ohm mono a ponte.**

**Controlli della sensibilitá**
L'amplificatore é regolato dalla casa per un ottimale rendimento dinamico. Il lilvello di ingresso puó essere regolato anche ad orecchio quando si impiega una sorgente con uscita superiore od inferiore. Seguite questa procedure:

1. Portate il controllo della sensibilitá al minimo (senso antiorario)
2. Suonate un brano musicale con elevato contenuto dinamico portando il volume della sorgente a circa 3/4
3. Aumentate lentamente il livello di ingresso dell'amplificatore e posizionatelo subito prima dell'insorgere di distorsione o quando il livello generale vi appaia confortevole

# RISOLUZIONE DEI PROBLEMI

| Sintomo | Diagnosi | Rimendo |
|---|---|---|
| **L'ampificatore non si accende** | Il B+ o il REM n on hanno una tensione compresa tra i 10,5 e 15,5 volt o nessuna tensione é presente | Verficate l'alternatore, la batteria, i fusibilit, il cablaggio e riparate quanto necessario |
| | L'amplificatore non é correttamente a massa | Controllate il cablaggio e riparat se necessario |
| **Rumore dell'amplificatore** (bump di accensione) | Picchi di tensione provenienti dalla sorgente entrano dall'ingresso dell'amplificatore | Se il bump si elimina disconnettendo gli ingressi, collegate un modulo di accensione |
| **Rumore dal motore** | Il rumore si propagna nei cavi di segnale | Ristendete i cavi di segnale lontano da cavi ad alta corrente |

## ENGLISH

Please contact your local Authorized
Rockford Fosgate Dealer for information
on Warranty Policies and Technical Support.

## ESPAÑOL

Por favor contacte al Distribuidor Autorizado Rockford Fosgate en su localidad para información sobre Políticas de Garantía Soporte Técnico.

## FRANÇAIS

Veuillez contacter votre distributeur Rockford Fosgate agréé pour toute information concernant les modalités de garantie et le support technique.

## DEUTSCH

Bitte Fragen Sie Ihren autorisierten Rockford Fosgate Händler über Informationen, die die Garantie oder technische Probleme betreffen.

## ITALIANO

Contattate il vostro rivenditore autorizzato Rockford Fosgate per informazioni sulle condizioni di garanzia e per il supporto tecnico.

# LIMITED WARRANTY INFORMATION

Rockford Corporation offers a limited warranty on Rockford Fosgate products on the following terms:

- **Length of Warranty**
  3 years on electronics
  2 years on source units
  90 days on electronic B-stock (receipt required)
  30 days on speaker B-stock (receipt required)

- **What is Covered**
  This warranty applies only to Rockford Fosgate products sold to consumers by Authorized Rockford Fosgate Dealers in the United States of America or its possessions. Product purchased by consumers from an Authorized Rockford Fosgate Dealer in another country are covered only by that country's Distributor and not by Rockford Corporation.

- **Who is Covered**
  This warranty covers only the original purchaser of Rockford product purchased from an Authorized Rockford Fosgate Dealer in the United States. In order to receive service, the purchaser must provide Rockford with a copy of the receipt stating the customer name, dealer name, product purchased and date of purchase.

- **Products found to be defective** during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Rockford's discretion.

- **What is Not Covered**
  1. Damage caused by accident, abuse, improper operations, water, theft
  2. Any cost or expense related to the removal or reinstallation of product
  3. Service performed by anyone other than Rockford or an Authorized Rockford Fosgate Service Center
  4. Any product which has had the serial number defaced, altered, or removed
  5. Subsequent damage to other components.
  6. Any product purchased outside the U.S.
  7. Any product not purchased from an Authorized Rockford Fosgate Dealer

- **Limit on Implied Warranties**
  Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. Some states do not allow limitations on the length of an implied warranty, so this limitation may not apply. No person is authorized to assume for Rockford Fosgate any other liability in connection with the sale of the product.

- **How to Obtain Service**
  Please call 1-800-669-9899 for Rockford Customer Service. You must obtain an RA# (Return Authorization number) to return any product to Rockford Fosgate. You are responsible for shipment of product to Rockford.

Ship to: **Electronics**
Rockford Corporation
Warranty Repair Department
2055 E. 5th Street
Tempe, AZ 85281
RA#:_____

Ship to: **Speakers**
Rockford Acoustic Design
(Receiving-speakers)
609 Myrtle N.W.
Grand Rapids, MI 49504
RA#:_____

## MADE IN THE USA

This product is designed, developed and assembled in the USA by a dedicated group of American workers. The majority of the components used in the construction of this product are produced by American companies. However, due to the global nature of their manufacturing facilities and the electronics parts industry in general, some parts may be manufactured in other countries.

**Rockford Fosgate**
Rockford Corporation
546 South Rockford Drive
Tempe, Arizona 85281 U.S.A.
In U.S.A., (602) 967-3565
In Europe, Fax (49) 850-3934-014
In Japan, Fax (81) 559-79-1265

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